

**AMENDMENTS TO THE ABSTRACT:**

Please replace the Abstract with the attached amended Abstract.

~~The invention provides a~~A method and apparatus for optimizing the performance of interpreter-based runtime systems. ~~The runtime system may include~~ includes a virtual machine where the virtual machine is adapted to interpret an application in the context of the particular runtime environment. The method ~~comprises~~ includes augmenting the bytecode set of the virtual machine with application-specific opcodes by reference to the application, thereby constituting an application domain-specific virtual machine. ~~The invention also provides~~ Furthermore, a method and apparatus for embedding semantically enriched ~~code~~ opcodes into an application ~~which is to be run~~ executed on the embedded runtime environment includes. ~~The embedding can be the enriched opcodes~~ statically or dynamically. ~~The invention may find be used in the JAVA runtime environment and particular applications of such embedded processors include function specific devices such as cell phones, PDA's and the like.~~